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Elektriska hushållsapparater för matlagning – Del 1: Spisar, ugnar, ångugnar och grillar – Funktionsprovning

*Household electric cooking appliances –
Part 1: Ranges, ovens, steam ovens and grills –
Methods for measuring performance*

Som svensk standard gäller europastandarden EN 60350-1:2013. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60350-1:2013.

Nationellt förord

Europastandarden EN 60350-1:2013

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60350-1, First edition, 2011^{*)} - Household electric cooking appliances - Part 1: Ranges, ovens, steam ovens and grills - Methods for measuring performance**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 50304/60350, utgåva 2, 2009 och SS-EN 50304/A1/SS-EN 60350/A11, utgåva 1, 2010, gäller ej fr o m 2016-06-03.

Tillsammans med SS-EN 60350-2, utgåva 1, 2013, ersätter denna standard SS-EN 50304/60350, utgåva 2, 2009 och SS-EN 50304/A1/SS-EN 60350/A11, utgåva 1, 2010.

Beräkningsexempel till standarden kan laddas ner i form av en Excel-fil från SEKs webbplats.

^{*)} Corrigendum, Februari 2012 till IEC 60350-1:2011 är inarbetat i standarden.

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SEK Svensk Elstandard

Box 1284
164 29 Kista
Tel 08-444 14 00
www.elstandard.se

English version

**Household electric cooking appliances -
Part 1: Ranges, ovens, steam ovens and grills -
Methods for measuring performance**
(IEC 60350-1:2011, modified + corrigendum Feb. 2012)

Appareils de cuisson électrodomestiques -
Partie 1: Cuisinières, fours, fours à vapeur
et grils -
Méthodes de mesure de l'aptitude à la
fonction
(CEI 60350-1:2011, modifiée +
corrigendum Feb. 2012)

Elektrische Kochgeräte für den
Hausgebrauch -
Teil 1: Herde, Backöfen, Dampfgarer und
Grillgeräte -
Verfahren zur Messung der
Gebrauchseigenschaften
(IEC 60350-1:2011, modifiziert +
corrigendum Feb. 2012)

This European Standard was approved by CENELEC on 2013-06-03. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

This document (EN 60350-1:2013) consists of the text of IEC 60350-1:2011 + corrigendum Feb. 2012 prepared by IEC/SC 59K "Ovens and microwave ovens, cooking ranges and similar appliances", of IEC/TC 59 "Performance of household and similar electrical appliances", together with the common modifications prepared by CLC/TC 59X "Performance of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2014-06-03
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2016-06-03
with this document have to be withdrawn

Together with EN 60350-2:2013, this document supersedes EN 50304:2009/EN 60350:2009 + A1:2010/A11:2010.

EN 60350-1:2013 includes the following significant technical changes with respect to EN 50304:2009/EN 60350:2009:

- the scope is revised (Clause 1). The ovens covered by this standard may be with or without microwave function. Steam ovens are included;
- new definitions for "Set to off mode" and "Set to standby mode" are included in Clause 3;
- the usable volume is reworded in calculated volume (6.2);
- performance measurements for steam ovens are described in 7.3 and Clause 8;
- an option for assessing the heat distribution with a digital measurement system is included in 7.5.2.4;
- Clause 12 "Standby power" is renamed to "Consumption measurement of low power modes" and the content is adapted to EN 50564;
- a measurement method for measuring the consumption of the cooling down period is added in the informative Annex ZB;
- a measurement method to check applied Microwave Energy during the measurement according to 7.4 is added in the informative Annex ZC.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60350-1:2011 are prefixed "Z".

Words in **bold** in the text are defined in Clause 3.

According to the decision D137/061 for CLC/TC 59X, this European Standard has been drawn up as a document which follows, as far as suitable, the structure of IEC 60350-1:2011.

It also describes the evaluation of data declared by the manufacturer and control procedures for checking these values.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

This European Standard is suitable for direct comparison and is considered sufficiently reproducible within given limits for the purpose of energy labelling according to the EU Directive 2010/30/EU on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products. All paragraphs which are relevant for the measuring of energy labelling are listed in Annex ZA.

Endorsement notice

The text of the International Standard IEC 60350-1:2011 + corrigendum Feb. 2012 was approved by CENELEC as a European Standard with agreed common modifications.

Annex ZD
(normative)

**Normative references to international publications
with their corresponding European publications**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60584-2 + A1	1982 1989	Thermocouples Part 2: Tolerances	EN 60584-2	1993
IEC 62301 (mod)	2011	Electrical and electronic household and office equipment – Measurement of low power consumption	EN 50564	2011
ISO 7724	(all parts)	Paints and varnishes - Colorimetry	-	-
ISO 11664-2	-	Colorimetry Part 2: CIE standard illuminants	EN ISO 11664-2	-
CIE 15.2	1986	Colorimetry	-	-

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HOUSEHOLD ELECTRIC COOKING APPLIANCES –

Part 1: Ranges, ovens, steam ovens and grills – Methods for measuring performance

1 Scope

This part of IEC 60350 specifies methods for measuring the performance of electric **cooking ranges, ovens, steam ovens, and grills** for household use.

The ovens covered by this standard may be with or without microwave function.

Manufacturers should define the primary cooking function of the appliance – microwave function or thermal heat. The primary cooking function has to be measured with an existing method according to energy consumption. If the primary cooking function is declared in the instruction manual as a microwave function, IEC 60705 is applied for energy consumption measurement. If the primary cooking function is declared as a thermal heat, then IEC 60350-1 is applied for energy consumption measurement.

NOTE 1 If the primary function is not declared by the manufacturer, microwave function and thermal heat should be measured as far as it is possible.

NOTE 2 For measurement of energy consumption and time for heating a load (see 7.4), this standard is furthermore not applicable to:

- microwave combination function;
- ovens with reciprocating trays or turntable;
- small cavity ovens;
- **ovens** without adjustable temperature control;
- heating functions other than defined in 3.12 to 3.14;
- appliances with only solo steam function (3.15).

NOTE 3 This standard does not apply to

- microwave ovens (IEC 60705),
- portable appliances for cooking, grilling, steaming and similar functions (IEC 61817).

This standard defines the main performance characteristics of these appliances which are of interest to the user and specifies methods for measuring these characteristics.

This standard does not specify requirements for performance.

NOTE 4 Some of the tests which are specified in this standard are not considered to be reproducible since the results may vary between laboratories. They are therefore intended for comparative testing purposes only.

NOTE 5 This standard does not deal with safety requirements (IEC 60335-2-6 and IEC 60335-2-9).

NOTE 6 Appliances covered by this standard may be built-in or for placing on a working surface or the floor.

NOTE 7 There is no measurement method for the energy consumption for grilling and steam functions available.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60584-2:1982, *Thermocouples – Part 2: Tolerances*
Amendment 1(1989)

IEC 62301:2005¹, *Household electrical appliances – Measurement of standby power*

ISO 7724 (all parts), *Paints and varnishes – Colorimetry*

ISO 11664-2², *Colorimetry – Part 2: CIE standard illuminants for colorimetry*

CIE 15.2:1986, *Colorimetry*

¹ This document has been replaced by a new edition (2011), but for the purposes of this standard, the 2005 edition is cited.

² Also published as CIE S 014-2.